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XV. — *On Steam Communication with the Southern Colonies (Australia and the Cape of Good Hope).* By Captain J. LORT STOKES, R.N., F.R.G.S.

Read, May 12, 1856.

DURING the past ten years the establishment of steam communication with Australia has undergone the most ample discussion and inquiry, both at home and in the colonies. The period has now arrived when it is absolutely necessary that our southern colonies should be knit together, and to the mother country, by that great artery of commerce, steam. Various routes, proposed by private enterprise and local interests, have been suggested, but seem to be inconsistent with the general interests of the Australian settlements, and unsupported by the evidence that had been accumulated.

Upon reference to the investigations that have been recorded on this subject, the following concurrent evidence will be found in favour of a route which appears to have been comparatively neglected :—

In 1846 a select committee of the Legislative Council of New South Wales, after obtaining a mass of evidence, reported, that “the least expensive, the most expeditious, and the most convenient and advantageous plan would be to join the China line at Singapore by Torres Strait.” “The advantages,” says the Report, “derivable to Australia from connexion with our Indian possessions and other parts of the East, would be greater even, than any direct advantage from postal communication with the mother country.”

Again, in 1846, Admiral Sir Francis Beaufort, then Admiralty Hydrographer, recommended the eastern route by Singapore and Torres Strait, objecting to the western route through the Indian Ocean, on account of its adverse winds and other obstacles and disadvantages. Sir Francis Beaufort’s report was printed in the Parliamentary papers, and no higher authority can be quoted.

Previously to the publication of these concurrent recommendations, I had urged a route through Torres Strait at meetings which took place in the City in 1845, and also in my publication of ‘Discoveries in Australia,’ made while surveying the coasts of that continent, between 1837 and 1843.

The chief objection against the Torres Strait route has only been raised in a cursory manner, on the ground of the dangerous navigation of the Strait, and the presumed boisterous and thick weather experienced there during the western monsoon. In reply to the latter it may be remembered that H.M.S. ‘Fly,’ Captain Blackwood, entered the Strait during the western monsoon, making the land

without difficulty. Thanks to the Admiralty surveys of Captains Blackwood and Owen Stanley, other objections to Torres Strait may be readily obviated; and it will not be supposed that the Admiralty Hydrographer, in recommending that route, overlooked the nature of the passage; while it may be fairly concluded that he was prepared to counteract its remediable defects.

As rather an exaggerated notion of the dangers of this part of the route appears to be entertained, the following details of the passage which I recommend, may be acceptable.

Ships coming from the westward should arrange to make Booby Island (in lat. $10^{\circ} 36'$ s., and long. $141^{\circ} 56'$ E.) before daylight; and through the tranquil seas of the Asiatic archipelago, steamers may reckon on doing so with some certainty. To facilitate the approach to Booby Island by night, it is proposed to erect a light house, although from its elevation, isolated position, and bold character, there is no difficulty in making it at any time. Hence the track proceeds through Prince of Wales Channel, the entrance to which is a mile in width, having a sunk reef on its northern side, which it is proposed to mark plainly by two buoys. In every other part of the track the passage is much wider, varying from 3 miles, in only a very few places, to 10 and 20 miles generally, and free from hidden dangers, except in the single case of the western entrance.

On clearing Prince of Wales Channel, the course lies north-easterly, between Travers Island and Double Island (7 m. apart), in the direction of Mount Ernest, which is above 750 ft. high. Thence it takes a more easterly course, passing midway between Saddle Island and Ninepin Rock, where the channel narrows to $3\frac{1}{2}$ m., at a distance of 40 m. from the western entrance. The track continues nearly in the same direction, passing close to the n. side of Bet Island, and midway between Dove Island, Coconut Island, and Village Island. Then it passes w. of Arden Island and Rennell Island, between Dalrymple and Campbell. Six m. N.E. of the lastnamed, lies Stevens Island, at a distance of about 100 m. from Prince of Wales Channel. From abreast of this island, daylight is no longer necessary, the passage lying through Bligh Entrance, between Bramble Cay and the tidal reef S. of it, leaving a width of 13 m., and a depth of 22 to 26 fathoms. It is proposed (if thought desirable) to mark this entrance by a light on Bramble Cay, and a buoy near the tidal reef. The track continues eastward, passing outside Portlock reef and the Eastern Fields, when the sea is open in the direction of Sydney. The islets, which dot this part of the Strait, are so bold that they of themselves, quite beacon the passage. Sail may be carried through the greater part of it in either monsoon.

In making the eastern entrance of Torres Strait the lofty moun-

tains of New Guinea may be seen forming a safe landfall; and the greatest comfort to the navigator, is the singular shelving nature of the bottom, fronting Bligh Entrance.

Throughout the Strait, the direction of the track ranges only between E. and N.E., or W. and S.W., without any sharp turn. The streams of tide set fair along it, with a moderate and even depth of water throughout, and the navigation is the easiest that it is possible to imagine through a coral sea. For a hundred miles only is daylight at all necessary.

As it will be requisite to have a coal depôt in Torres Strait, the party in charge might superintend the lights, buoys, and also the pilotage that may become desirable. The coal may be conveyed from the mines near Sydney to this depôt, with a degree of ease and economy that can never be attained on the southern route; this is owing to the number of ships which proceed from Sydney in ballast through Torres Strait to India.

The advantages of the Torres Strait route in developing the commerce of Australia, have been alluded to in quoting the Report of the New South Wales Legislature. The commerce of the mother country must also be largely promoted by steam communication along that part of the track passing through the Asiatic Archipelago, teeming with population, and abounding in natural products of the greatest value. There is at present no British entrepôt in those seas eastward of Singapore, although the Arru Islands alone, at a distance of 2000 m. from Singapore, were reported some years since to consume British goods of the annual value of 30,500*l*.

The Torres Strait route recommends itself under another important aspect. The only part of Australia where new settlements can be formed, must be sought northward of Sydney, along the eastern coast, and in the Gulf of Carpentaria. Among other prosperous localities on the E. coast, Moreton Bay has already become an important centre, and flocks and herds are rapidly stretching northward along the salubrious lofty downs and perennial rivers of the coast ranges. About 2,000,000 of sheep, 234,000 cattle, and more than 8000 horses are already enumerated in these districts. The squatters had reached Peak Range some time since; and the period cannot be distant when they will seek an outlet in the Gulf of Carpentaria, as they formerly did at Port Phillip. Sir Thomas Mitchell has described the country stretching away from the Barcú River towards the Gulf of Carpentaria, as the finest in Australia. Leichhardt, on his overland journey from Sydney to Port Essington, along the southern shores of the Gulf, says, that "cattle driven by easy stages would fatten on the road;" and he describes the climate as highly congenial to the human constitution, even under adverse circumstances. My

own explorations in the interior, confirm the experience of this eminent traveller.

The formation of a settlement on the southern shores of the Gulf of Carpentaria, adjacent to the harbour discovered by Flinders and surveyed by myself, would operate at once as a trading depôt for the eastern end of the Archipelago, distant 2000 m. from Singapore ; and it would also provide an outlet and port for the squatters, moving towards that direction.

At a distance of 1500 m. from Sydney, such a settlement would offer very favourable conditions for a penal establishment, the territory, though wholly unoccupied, being extensive, fertile, and capable of sustaining a large population. Road-making and other public works would afford the convicts abundant occupation without resorting to the objectionable practice of placing them in private families—a system which caused as much mischief in the colonies, as tickets-of-leave are producing now at home. A system of dispersion may certainly be adopted that would be of equal advantage to the settlement and the convict.

I recommended this proposal to the Duke of Newcastle, when he did me the honour to consult me about the North Australian Exploring Expedition. At that time the ticket-of-leave system had not reached its climax ; while the recent meeting of convicts, convened by Mr. Mayhew, has, by the evidence of convicts themselves, placed a seal on the inefficacy of any plan short of migration. The state of our prisons also renders it evident that an outlet of this kind is required.

Western Australia almost owes its maintenance to the transfer of convicts to that isolated settlement ; but its capacity for their profitable occupation must soon reach its limit, owing to the restrictive extent of its productive resources. After the boundary of North Australia was settled on the map, it was the intention of the Government to establish a remodelled penal settlement there. The Moreton Bay settlers have themselves expressed a wish for convict labour.

To return, however, to points bearing more immediately on steam communication with Australia, it would seem that those who have advocated a southerly route across the Indian Ocean from Aden by Diego Garcia, though only some hundred miles shorter than that by Singapore and Torres Strait, have overlooked the circumstance, that it crosses a hurricane track, and is exposed to the high seas and strong winds so frequent on the S. coast of Australia. Against these impediments it will be found that no steamer can depend on keeping her time, and the home mail-ship from India will be frequently missed at Aden. This delay of the Australian return mail would be far less likely to occur, on the more tranquil or smooth sea route to Singapore by Torres Strait, which has also

the advantage of large population and active trade along its shores.

Another advantage in the Torres Strait route, is the adoption of Sydney, the seat of the Governor-General, as the Australian terminus. As a harbour, and with its facilities for repairing large ships, it is infinitely superior to Melbourne. To this must be added its proximity to New Zealand, to the growing trade of Polynesia, and to the great and available coal-fields in its immediate neighbourhood.

These subjects all deserve some further consideration than a passing allusion ; but I will only dwell for a few moments on the additional importance, which Eastern Australia derives from the progress of other European interests in Polynesia, and more especially in New Caledonia, fronting our seaboard.

The occupation by the French of this fine island, discovered by our immortal Captain Cook, must have a great influence on our Australian interests, and not less on our relations with the adjacent regions in the Asiatic Archipelago and in the Pacific. At first doubtless, New Caledonia will derive supplies of cattle, coal, &c., from our adjacent settlements on the eastern coast of Australia, and the demand thereby created, will tend to hasten the progress of settlement along that coast. But as New Caledonia possesses coal mines, and boasts of fresher and richer pastures than Australia, and even anticipates the production of finer wool than our own, that island, supported in her infancy by the resources of France, will doubtless soon be changed from the condition of a customer to that of a competitor. Already we have heard of the attractions which New Caledonia will offer to vessels trading between Australia and China ; and it is therefore only consistent with prudence and foresight, to strengthen the traffic which has been established between Australia and the Asiatic continent and Archipelago, by introducing steam communication on that route, and encouraging the extension of settlement towards the great northern Gulf of Carpentaria.

From the vast amount of local steam communication existing in Australasia, it may be considered that branch lines are already established from Sydney to Melbourne, South Australia, Tasmania, and New Zealand. The Swan River mail might be conveyed by a smart schooner from South Australia.

If the outward mail should be a day or two longer in reaching *Melbourne* by the Torres Strait route, that risk will be amply compensated by preventing the home mail from being delayed a fortnight at Aden, an inconvenience which has occurred on the southern route.

If the Australian subsidy be great enough to warrant two lines, then a second from Aden, *viâ* the Mauritius, King George Sound,

and Adelaide to Melbourne may be adopted, leaving New Zealand, Sydney, and Moreton Bay to join the Indian trunk line at Singapore, *viâ* Torres Strait. The rough and stormy sea passage from the Mauritius would probably at first give greater satisfaction to the south coast settlements, and may cause an earlier delivery of the outward mail to those places; but for regularity, economy, and speed, particularly homeward, the Torres Strait route would, I believe, ultimately be preferred. As to the comparative comfort of the two lines there can be no question; on the one there will be a continual roll, with nothing but sea! sea! sea!—while the other offers placid waters and picturesque scenery through its greater part.

It may be observed that many thousand tons of sugar, consumed by Australia, are supplied in almost equal quantities, by Mauritius and the Asiatic archipelago.

The consideration of steam traffic with our great settlements on the eastern side of the Indian Ocean, naturally gives rise to reflections on our communications with the great African continent which forms the western boundary of that ocean.

A branch from the great trunk line to India may be established, offering better prospects of profit and greater facilities of postal communication to the Cape of Good Hope, than it has ever enjoyed.

This line, starting from Aden, might touch at Mauritius and Bourbon, or, proceeding along the African coast, it may derive support from the trading ports of Zanzibar, Mombas, the Portuguese settlements of Mozambique, Joanna in the Comoro Islands, the great island of Madagascar, Delagoa Bay, Natal, Algoa Bay, and the Cape of Good Hope. Eastern and southern Africa and the wealthy islands of the Indian Ocean would thus be brought into connexion with the advantages of the overland railway transit.

Whenever it shall be determined to unite the Cape of Good Hope and Australia with England by the electric wire, these lines will also be found to be the most practicable. Already the East India Company are about to extend their cables to Sumatra and Java.

The effect of postal facilities in developing trade along populous and naturally productive routes must lead to results of great importance. The lines proposed are of this character. No great, profitless stretches of ocean and uninhabited coast, so ruinous to steamship owners, would have to be passed. On the contrary, population would be followed on the track which it has marked out; and the proposed routes would develop intermediate traffic, as well as form the grand trunk lines of communication from the centre of government and commerce, to these extremities of the British dominions.
